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(54) **APPARATUS AND METHOD OF PROVIDING FINGERTIP HAPTICS OF VISUAL INFORMATION USING ELECTRO-ACTIVE POLYMER FOR IMAGE DISPLAY DEVICE**

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(57) **ABSTRACT**

An apparatus provides fingertip haptics of visual information using an electro-active polymer for an image display device. The apparatus includes a sensing unit which outputs a detecting signal by detecting a user's finger touching a surface of a touch panel; a pattern generating unit which generates a pattern signal of haptic information from the visual information based on the detecting signal, and a control unit which moves the electro-active polymer based on the detecting signal from the sensing unit and deforms the electro-active polymer based on the pattern signal from the pattern generating unit.

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